

CLAIM AMENDMENTS

Claim 1 (Original): An isolated mammalian nucleic acid molecule encoding the Prostate Carcinoma Tumor Antigen Gene-1 protein.

2. (Original): A DNA molecule of claim 1.

3. (Original): A genomic DNA molecule of claim 2.

4. (Original): A cDNA molecule of claim 2.

5. (Original): An RNA molecule of claim 1.

6. (Original): An isolated human nucleic acid molecule of claim 1.

7. (Original): A nucleic acid molecule of at least 15 nucleotides capable of specifically hybridizing with a unique sequence of the nucleic acid molecule of claim 1.

8. (Original): An antisense oligonucleotide having a sequence capable of specifically hybridizing to an RNA molecule encoding the Prostate Carcinoma Tumor Antigen Gene-1 protein so as to prevent translation or cause degradation of the RNA molecule.

9. (Original): A method of detecting expression of the Prostate Carcinoma Tumor Antigen Gene-1 in a sample which contains comprising the steps of:

(a) obtaining total RNA from the cells;

(b) contacting the RNA so obtained with a labelled nucleic acid molecule of claim 7 under hybridizing conditions; and

(c) determining the presence of RNA hybridized to the molecule, thereby detecting the expression of the Prostate Carcinoma Tumor Antigen Gene-1 in the sample.

10. (Original): A method of detecting expression of the Prostate Carcinoma Tumor Antigen Gene-1 in tissue sections which comprises steps of:

(a) contacting the tissue sections with a labelled nucleic acid molecule of claim 7 under hybridizing conditions permitting hybridization of the molecule of claim 7 and the RNA of Prostate Carcinoma Tumor Antigen Gene-1; and

(b) determining the presence of RNA hybridized to the molecule of claim 7, thereby detecting the expression of the Prostate Carcinoma Tumor Antigen Gene-1 in tissue sections.

11. (Original): An isolated mammalian nucleic acid molecule of Claim 2 operatively linked to a promoter of RNA transcription.

12. (Original): A vector which comprises the isolated mammalian nucleic acid molecule of Claim 1.

13. (Original): A plasmid of Claim 12.

14. (Original): A virus of Claim 12.

15. (Original): A DNA virus of Claim 14.

16. (Original): AN RNA virus of Claim 14.

17. (Original): A retrovirus of Claim 14.

18. (Original): The plasmid of Claim 13 designated PCTA-1, having ATCC Accession No. 97021.

19. (Original): A host vector system for the production of a polypeptide having the biological activity of a mammalian Prostate Carcinoma Tumor Antigen Gene-1 protein which comprises the vector of Claim 12 and a suitable host.

20. (Original): A host vector system of Claim 19, wherein the suitable host is selected from a group consisting of a bacterial cell, an insect cell, a plant cell and a mammalian cell.

Claims 21-127 (canceled).